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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,146	11/05/2003	Larry E. Curtis	SPL-46 / 47181-00283USPT	7810
23569	7590	11/10/2004	EXAMINER PRETLOW, DEMETRIUS R	
SQUARE D COMPANY INTELLECTUAL PROPERTY DEPARTMENT 1415 SOUTH ROSELLE ROAD PALATINE, IL 60067			ART UNIT 2863	PAPER NUMBER

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/702,146	<b>Applicant(s)</b> CURTIS ET AL.	
	<b>Examiner</b> Demetrius R. Pretlow	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43, 45-66 is/are rejected.
- 7) ☒ Claim(s) 44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 44 is objected to because of the following informalities:

Claim 44 is a method claim dependent on an apparatus claim. Examiner can not ascertain what claim 44 is dependent of. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,5-18,20-35,3743,44-51,53-66 are rejected under 35 U.S.C. 102(b) as being anticipated by Bradley "Applying Predictive Maintenance to Power Quality" .

Bradley teach a system for accumulating and evaluating electromagnetic phenomena of at least one power quality category of a power distribution system, comprising a circuit monitor that summarizes and trends said electromagnetic phenomena. Note Bradley page 229, right column, lines 8-15 and page 231, right column lines 9-12.

In reference to claims 2, 18, Bradley teach circuit monitor is informed of its context with said power distribution system to provide for metering configurations and data analysis. Note Bradley page 231, lines 2-16.

In reference to claims 5, 21,Bradley teach trending of data includes alerting said system when said power quality changes. Note page 237, left column lines 27-32 and page 230, right column lines 35-37.

In reference to claims 6, 22, Bradley wherein said at least one power quality category is weighted according to the load type present. Note page 230, left column lines 45-49 and right column, lines 1-21.

In reference to claims 7, 23 Bradley teach under voltage (voltage sag). Note Bradley Page 231, Fig. 1.

In reference to claims 8, 24 Bradley teach over voltage (voltage swell). Note Bradley Page 231, Fig. 1.

In reference to claims 9, 25, Bradley teach wherein said power quality category is voltage imbalance. Note Bradley Page 231, Fig. 1.

In reference to claims 10, 26 Bradley teach wherein said power quality category is waveform distortion. Note Bradley Page 231, Fig. 1.

In reference to claims 11, 27, Bradley teach wherein said power quality category is waveform distortion (impulses). Note Bradley Page 231, Fig. 1.

In reference to claims 12, 28, Bradley teach wherein said power quality category is voltage flicker. Note Bradley Page 231, Fig. 1.

In reference to claims 13, 29, Bradley teach wherein said power quality category is voltage sags. Note Bradley Page 231, Fig. 1.

In reference to claims 14, 30, Bradley teach wherein said power quality category is voltage swells. Note Bradley Page 231, Fig. 1.

In reference to claims 15, 31, Bradley teach wherein said power quality category is voltage interruptions. Voltage interruptions is one reason why power monitors are used. Note page 231, right column lines, 2-17.

In reference to claim 16, Bradley teach wherein said power quality category is transient overvoltages. Note Bradley Page 231, Fig. 1.

In reference to claim 17, Bradley teach a system for evaluating and trending power quality of a power distribution system comprising a system of networked circuit monitors, wherein each of said circuit monitors accumulates and evaluates the electromagnetic phenomena of at least one power quality category. Note Bradley page 229, right column, lines 8-15 and page 231, right column lines 2-19 and Figure 1.

In reference to claims 33, 66 Bradley teach wherein said system comprises a software application running on a networked personal computer. Note page 229, lines 4-15 and page 230, right column lines 53 to page 231, left column lines 1-5.

In reference to claim 34, Bradley teach a method of accumulating and evaluating electromagnetic phenomena of at least one power quality category of a power distribution system, comprising summarizing and trending said electromagnetic phenomena in a circuit monitor. Note Bradley page 229, right column, lines 8-15 and page 231, right column lines 9-12.

In reference to claims 35, 52 Bradley teach circuit monitor is informed of its context with said power distribution system to provide for metering configurations and data analysis. Note Bradley page 231, lines 2-16.

In reference to claims 38,54 Bradley teach trending of data includes alerting said system when said power quality changes. Note page 237, left column lines 27-32 and page 230, right column lines 35-37.

In reference to claims 39, 55 Bradley wherein said at least one power quality category is weighted according to the load type present. Note page 230, left column lines 45-49 and right column, lines 1-21.

In reference to claims 40, 56 Bradley teach under voltage (voltage sag). Note Bradley Page 231, Fig. 1.

In reference to claims 41, 57 Bradley teach over voltage (voltage swell). Note Bradley Page 231, Fig. 1.

In reference to claims 42, 58 Bradley teach wherein said power quality category is voltage imbalance. Note Bradley Page 231, Fig. 1.

In reference to claims 43, 59 Bradley teach wherein said power quality category is waveform distortion. Note Bradley Page 231, Fig. 1.

In reference to claim 44,60 Bradley teach wherein said power quality category is waveform distortion (impulses). Note Bradley Page 231, Fig. 1.

In reference to claims 45,61 Bradley teach wherein said power quality category is voltage flicker. Note Bradley Page 231, Fig. 1.

In reference to claim 46,62 Bradley teach wherein said power quality category is voltage sags. Note Bradley Page 231, Fig. 1.

In reference to claims 47,63 Bradley teach wherein said power quality category is voltage swells. Note Bradley Page 231, Fig. 1.

In reference to claim 48,64 Bradley teach wherein said power quality category is voltage interruptions. Voltage interruptions is one reason why power monitors are used. Note page 231, right column lines, 2-17.

In reference to claims 49, 65 Bradley teach wherein said power quality category is transient overvoltages. Note Bradley Page 231, Fig. 1.

In reference to claim 50, Bradley teach a method of accumulating and evaluating electromagnetic phenomena of at least one power quality category of a power distribution system, comprising a system of networked circuit monitors, wherein each of said circuit monitors accumulating and evaluating said electromagnetic phenomena in a circuit monitor. Note Bradley page 229, right column, lines 8-15 and page 231, right column lines 2-19 and Figure 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,19,36 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley in view of Chung et al. "Development of Power Quality Diagnosis System for Power Quality Improvement".

In reference to claim 3, Bradley does not teach wherein the determination of a power quality index is expressed as a single number for each said power quality category.

Chung et al. teach wherein the determination of a power quality index is expressed as a single number for each said power quality category. Note Chung et al. page 1259, right column lines 27-33.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Bradley to include the teaching of Chung et al. because it would prioritize the power quality events. Note Chung et al. page 1259, right column lines 27-33.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (703) 272-2278. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Demetrius R. Pretlow

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